

EXECUTIVE OFFICER'S SUMMARY REPORT
9:00 a.m., March 24, 2004
North Coast Regional Water Board
Hearing Room
5550 Skylane Boulevard, Suite A
Santa Rosa, California

ITEM: 4

SUBJECT: City of Eureka - Elk River Wastewater Treatment Facility, Humboldt County,
Renewal of NPDES Permit, WDID No. 1B82151OHUM.

DISCUSSION

The City of Eureka (hereinafter Permittee) submitted a Report of Waste Discharge (ROWD) for renewal of Waste Discharge Requirements (WDRs) and NPDES Permit for its Wastewater Treatment Facility (WWTF) on August 22, 2002. NPDES Permits are required to be renewed and/or revised every five years. The facility is currently governed by Waste Discharge Requirements Order No. 98-9.

The WWTF serves the City of Eureka and the surrounding unincorporated sewer areas within the Humboldt Community Services District. Incoming wastewater is treated at a headworks structure consisting of flow measurement; a bar screen to remove large material; and an aerated grit chamber to remove dirt, sand, and rock. The facility treats wastewater to secondary standards via primary clarification followed by a recirculating trickling filter and final clarification. Effluent is disinfected in a chlorine contact chamber and stored in an effluent holding pond. The facility discharges effluent via a pipeline to a point in Humboldt Bay near Channel Marker No. 12. Effluent is only discharged during ebb tides such that wastewater leaves the Bay before the tide changes. Both the Regional Water Board and State Water Resources Control Board have reviewed this discharge scenario and found it to be equivalent to an ocean discharge. Therefore, the effluent limitations for the facility, with the exception of the coliform standards, are derived from the Ocean Plan (2001) rather than *Phase 1 of the Inland Surface Waters Plan and the Enclosed Bays and Estuaries Plan (2000)*.

The Elk River WWTF is designed for a peak dry weather flow of 8.6 million gallons per day (mgd) and a peak wet weather flow of 32 mgd. Secondary treatment is provided for all flows up to 12 mgd. Flows between 12 and 32 mgd, which result from inflow and infiltration during the winter rainy season, receive only primary treatment. The primary and secondary flows are blended prior to discharge but meet the effluent limits contained in this Permit, including technology-based effluent limits for secondary treatment. This is consistent with the US EPA's proposed blending policy published in the Federal Register on November 7, 2003. General Provision F.15 requires that the City develop and implement a wastewater collection system program to eliminate all excessive infiltration and inflow in order to minimize the amount of flow blending. The Monitoring and Reporting Program requires monitoring of blended flows to ensure compliance with effluent limitations.

Biosolids (sludge) generated by the facility is routed to one of two digesters for treatment. After digestion, biosolids are stored in two facultative lagoons. During the dry season, liquid biosolids are removed from the lagoons and applied, via subsurface injection, as a fertilizer on 98 acres of City-owned pasture land near the facility. The draft Permit contains biosolids disposal requirements in conformance with federal regulations and a monitoring program for monitoring the biosolids and the condition of the disposal area.

Since startup, the facility has been plagued by recurrent odor problems. Odor problems are intermittent and generally occur in the summer near the treatment facility and at several pump stations. Upon investigation of the problem, the City determined that the long length of the City's main sewer line, and resultant residence time of the raw sewage in the collection system, allowed the production of odor-causing compounds. The City has covered the WWTF headworks in an effort to control odor and has installed a ferric chloride injection system to chemically treat odor-causing compounds. Last summer the City covered the trickling filters to further reduce odors from the facility.

The facility, located in a degraded wetland, is 16 acres in size. Special legislation allowed citing the facility in a wetland area in concert with wetland restoration efforts and habitat restoration on 139 adjacent acres. The City owns and operates the wildlife area under direction of the Department of Fish and Game.

The proposed Order revises the NPDES Permit and reflects changes in the California Ocean Plan, as amended by the State Water Resources Control Board in 2001. Historical permit compliance and rationale for changes to effluent limitations are summarized in the attached Fact Sheet.

PRELIMINARY STAFF

RECOMMENDATION: Adopt the Order as proposed.